VULCAN

SERVICE MANUAL

GPC SERIES GAS PASTA COOKERS

MODELS

GPC12	*ML-126881*
GPC12S	*ML-126883*
GPC16	*ML-126882*
GPC16S	*ML-126884*

– NOTICE –

This Manual is prepared for the use of trained Vulcan Service Technicians and should not be used by those not properly qualified. If you have attended a Vulcan Service School for this product, you may be qualified to perform all the procedures described in this manual.

This manual is not intended to be all encompassing. If you have not attended a Vulcan Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Vulcan Service Technician.

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For additional information on Vulcan-Hart Company or to locate an authorized parts and service provider in your area, visit our website at www.vulcanhart.com

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FORM 31207 (April 2002)

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GENERAL

INTRODUCTION

Procedures in this manual will apply to all models unless specified. Pictures and illustrations can be of any model unless the picture or illustration needs to be model-specific.

Models GPC12S and GPC16S are equipped with an additional tank, which is plumbed to both hot and cold water. Some models are equipped with an optional basket lift.

INSTALLATION

Generally, installations are made by the dealer or contracted by the dealer or owner. Detailed installation instructions are included in the Installation and Operation Manual, which is sent with each unit.

OPERATION

Detailed operation instructions are included with each pasta cooker in the Installation and Operation manual.

CLEANING

Detailed cleaning procedures are included in the Installation and Operation Manual.

LUBRICATION

Motor bearings are sealed and prelubricated.

SPECIFICATIONS

Electrical Data

Model	Volts	Hertz	Phase	Amps
GPC12, GPC12S, GPC16, GPS16S	120	60	1	13.2

Gas Data

Model	No. Tubes	BTU Input	Width
GPC12	3	90,000	15 $^{1}/_{2}$"
GPC12S	3	90,000	31"
GPC16	4	120,000	21"
GPC16S	4	120,000	42"

TOOLS

Standard

- Hand tools (standard set)
- VOM with AC current tester (any quality VOM with a sensitivity of at least 20,000 ohms per volt can be used)
- Temperature tester (thermocouple-type)
- Manometer

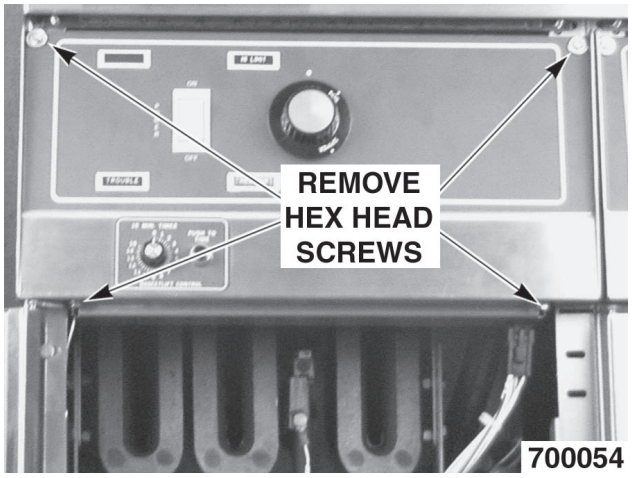
REMOVAL AND REPLACEMENT OF PARTS

COVERS AND PANELS

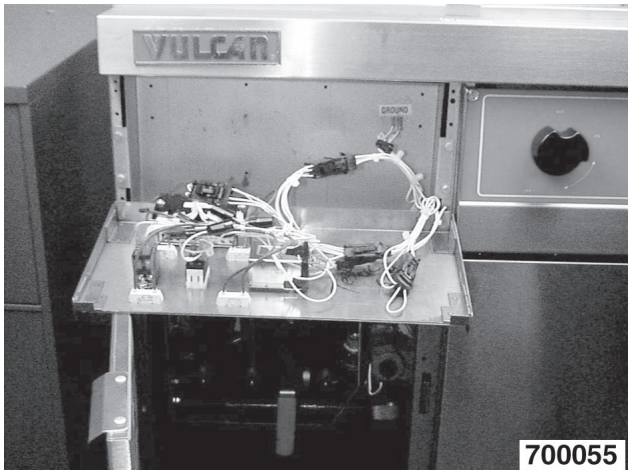
WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

Cooker Control Panel

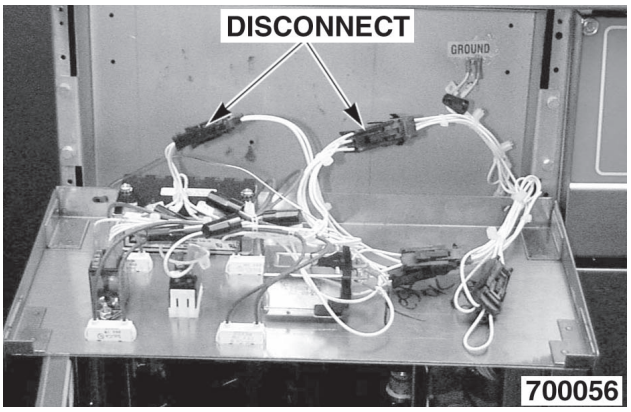
1. The control panel is secured with four hex head screws, two on each side of the panel and two under the flange. Remove these screws.



2. Fold down the control panel.



3. Disconnect the main wire harness (two places) and carefully remove the panel from the fryer.

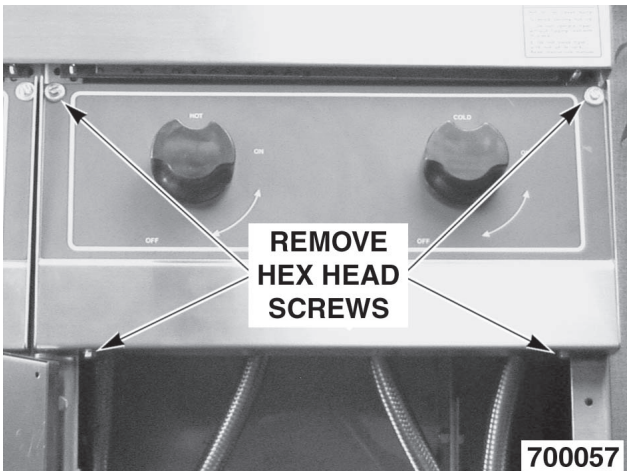


4. Reverse the procedure to install.

Rinse Station Control Panel

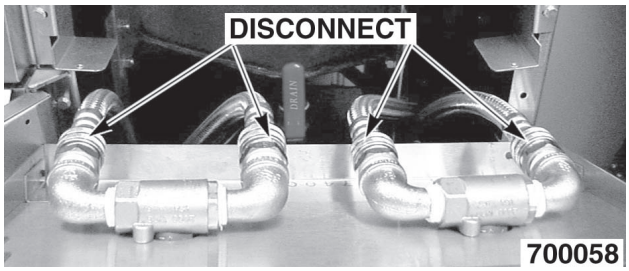
WARNING: SHUT OFF WATER BEFORE SERVICING.

1. The control panel is secured with four hex head screws, two on each side of the panel and two under the flange. Remove these screws.



2. Lift the panel off.

3. Disconnect the water hoses and remove the panel from the rinse station.



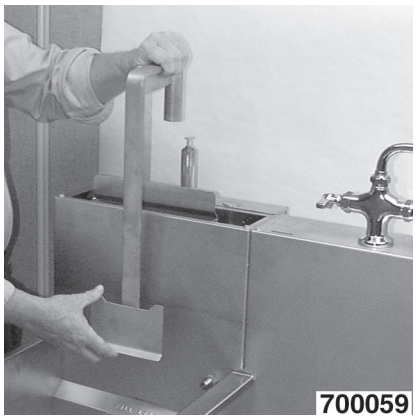
4. Reverse the procedure to install.

Upper and Lower Lift Mechanism Panels

WARNING: SHUT OFF THE GAS BEFORE SERVICING.

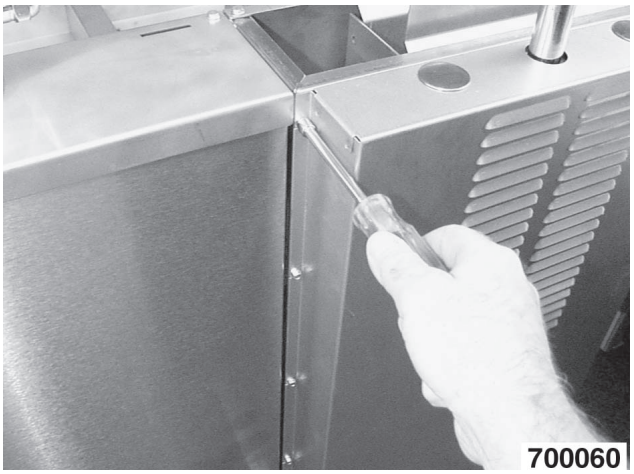
WARNING: ALL GAS JOINTS DISTURBED DURING SERVICING MUST BE CHECKED FOR LEAKS. CHECK WITH SOAP AND WATER SOLUTION (BUBBLES). DO NOT USE AN OPEN FLAME.

1. Remove basket lift arm.

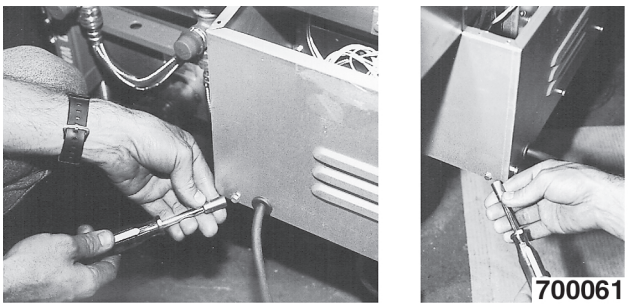


2. Disconnect tipping restraint. Disconnect gas supply union at the rear of the pasta cooker.

3. Remove hex head screws from the upper panel.



4. Remove the head screws from the lower panel.



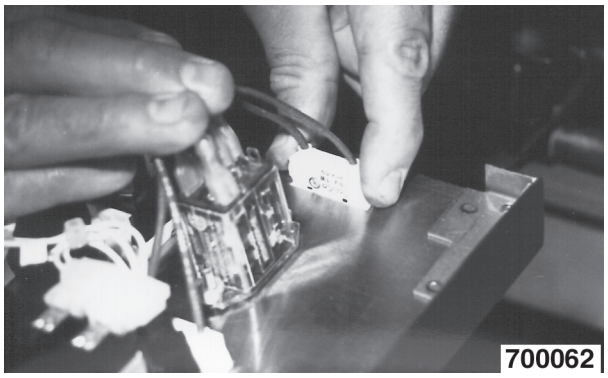
5. Lift back up and over the lift mechanism.
6. Remove panel.
7. Reverse the procedure to reinstall panels.

CONTROL PANEL COMPONENTS

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

Indicator Light

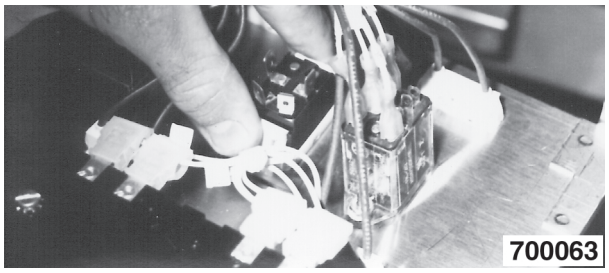
1. Remove the cooker control panel as outlined under Covers and Panels.
2. From the rear of the control panel, unscrew the wire cap of the light to be replaced.
3. Press the tabs on both sides of the indicator light being replaced and pull the light out through the front of the panel.



4. Reverse the procedure to install indicator light.

Rocker Switches

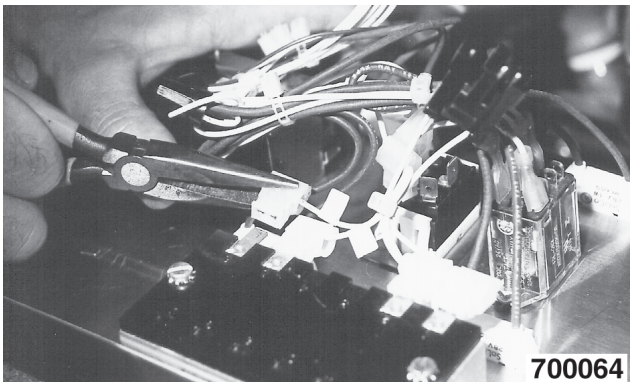
1. Remove the cooker control panel as outlined under Covers and Panels.
2. Remove the wire leads from the rocker switch terminals.
3. Press the tabs on both sides of the switch and push it through the front of the control panel. Retain the switch backup plate for reassembly.



4. Reverse the procedure to install new rocker switch.

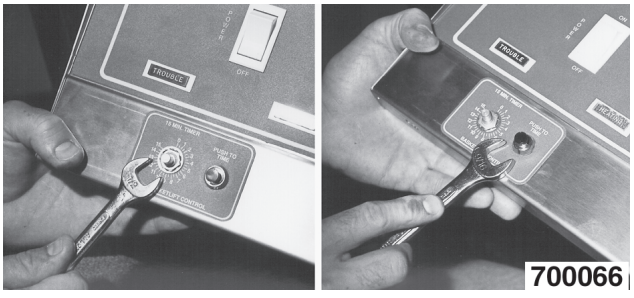
Optional Basket Lift Timer

1. Remove the cooker control panel as outlined under Covers and Panels.
2. Remove all the wiring associated with the timer.



3. With an 1/8" Allen wrench, loosen the setscrew and remove the knob.

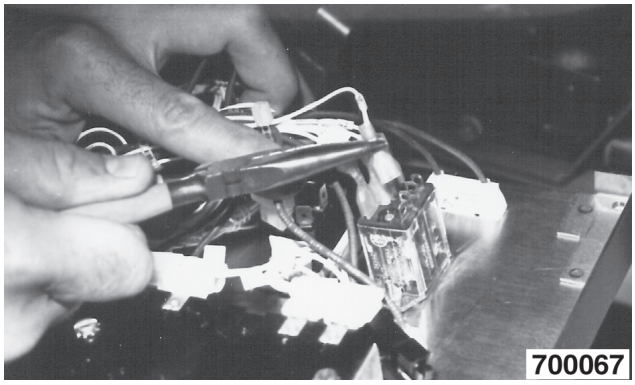
4. Remove the timer mounting hardware and remove the timer.



5. Reverse the procedure to install new timer.

Relay

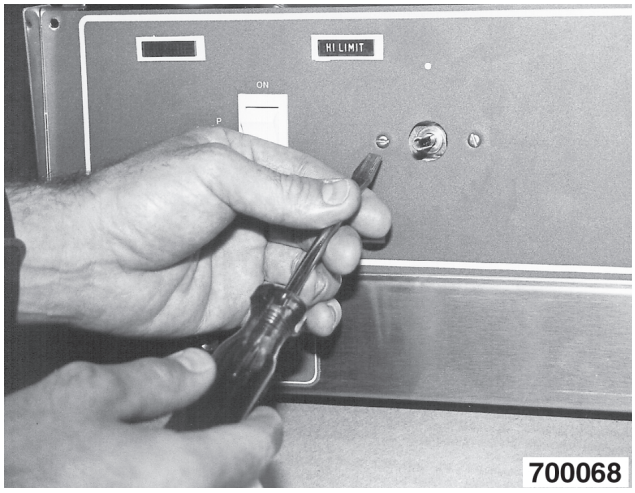
1. Remove the cooker control panel as outlined under Covers and Panels.
2. Remove all the wiring associated with the relay.



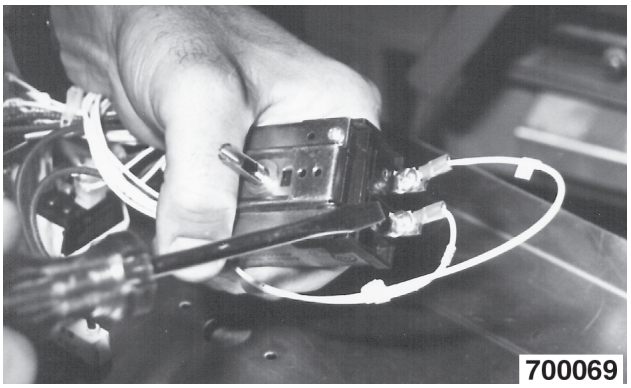
3. Remove the two holding nuts and pull the relay off of the panel.
4. Reverse the procedure to install new relay.

Thermostat

1. Drain all the water from the cooker tank.
2. Remove the cooker control panel as outlined under Covers and Panels.
3. Remove knob.
4. Remove the two screws securing the thermostat to the panel.

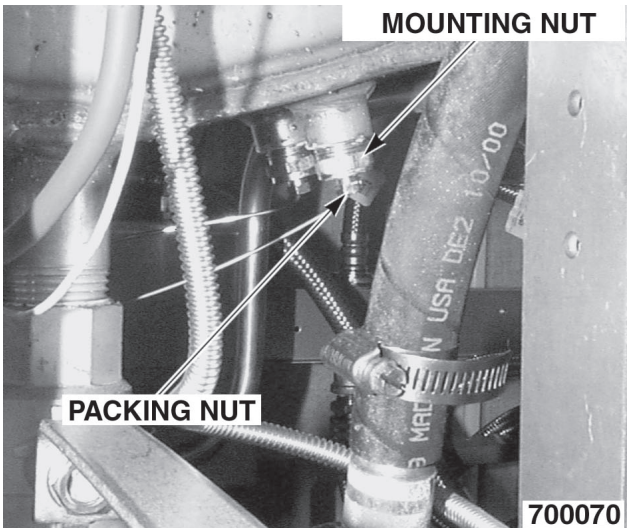


5. Remove all the wiring associated with the thermostat.

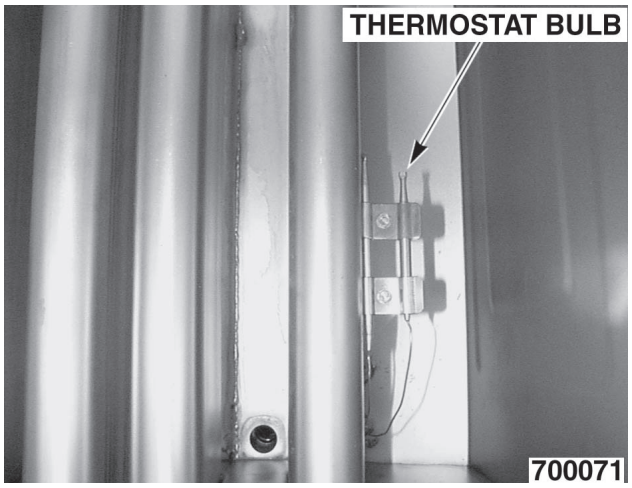


6. Follow the thermostat capillary to the packing nut located on the bottom of the cooker tank.
7. Access to the packing nut can be gained through the rinse station door on the right side of the pasta cooker. Remove the packing nut then remove the thermostat mounting nut.

NOTE: If more room is required to reach the packing nut, the right burner may be removed in front of the cooker tank (see Gas Burners).



8. Remove the thermostat bulb from the tank mounting brackets.



9. Reverse the procedure to install new thermostat.

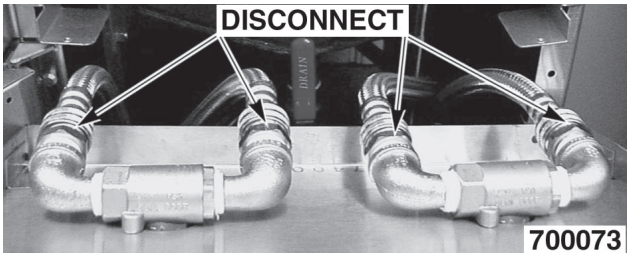
Water Fittings

WARNING: SHUT OFF WATER BEFORE SERVICING.

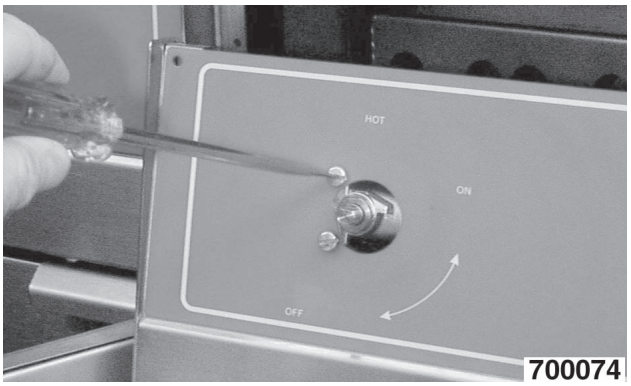
1. Remove the rinse station control panel as outlined under Covers and Panels.
2. With an 1/8" Allen wrench, loosen the setscrews and remove the knobs.

3. Disconnect the water hoses and remove the control panel from the rinse station.

NOTE: When hose fittings are removed, inspect the hose washers for cracking and wear. Replace with new washers if needed.



4. Remove the two screws securing the water fittings to the control panel and remove the fittings.

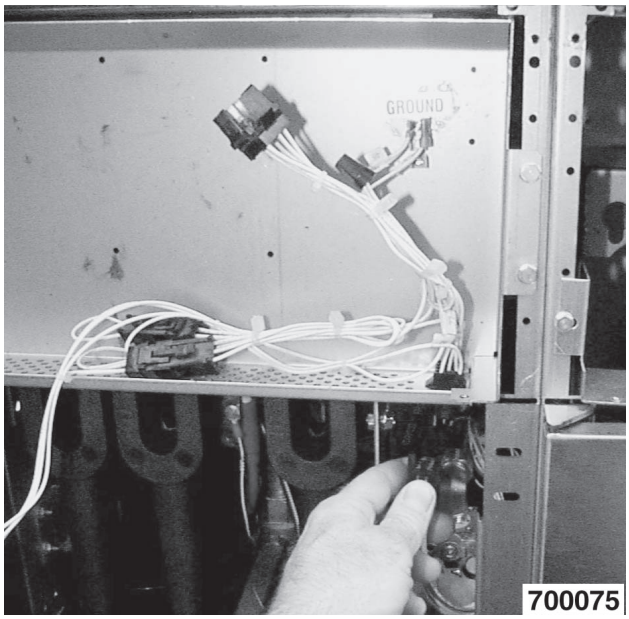


5. Reverse the procedure to install new water fittings.

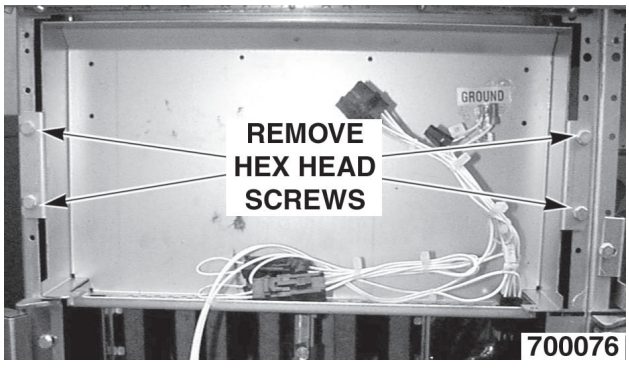
CONTROL BOX HOUSING

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

1. Remove the cooker control panel as outlined under Covers and Panels.
2. Disconnect the wire harness located on the bottom right side of the control housing.



3. Remove the four hex head screws holding the control box housing to the frame.



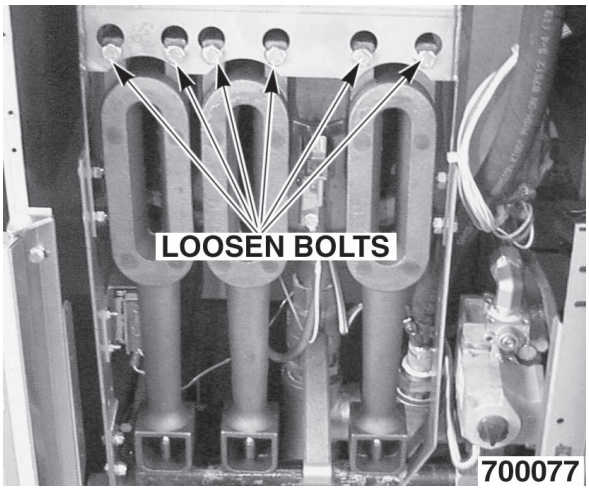
4. Remove the control box housing.
5. Reverse the procedure to install.

GAS BURNERS

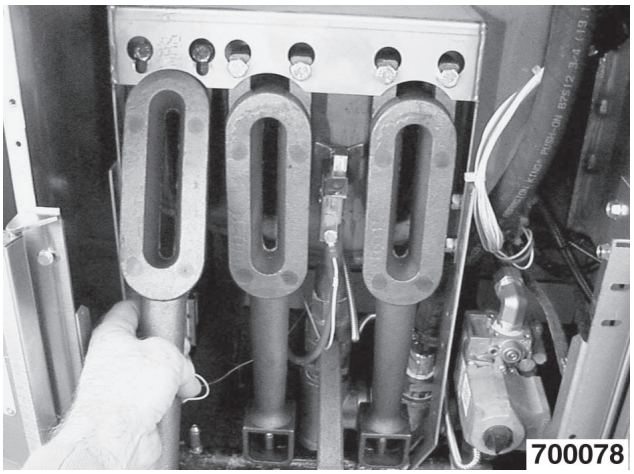
WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

WARNING: SHUT OFF THE GAS BEFORE SERVICING.

1. Remove the cooker control panel as outlined under Covers and Panels.
2. Remove the control box housing as outlined under Control Box Housing.
3. There are three burners located in front of the cooker tank. Loosen the bolts above each burner.



4. Grasp the burner body and push it upward over the burner nozzle. Tilt the burner head back and pull out.

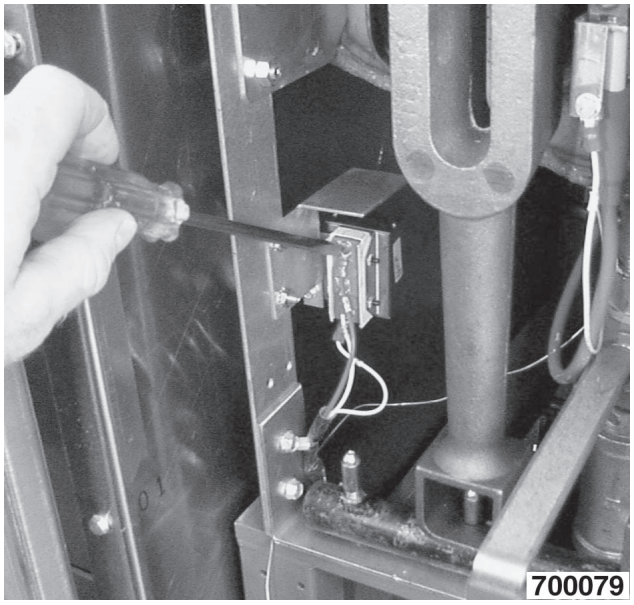


5. Reverse the procedure to install.

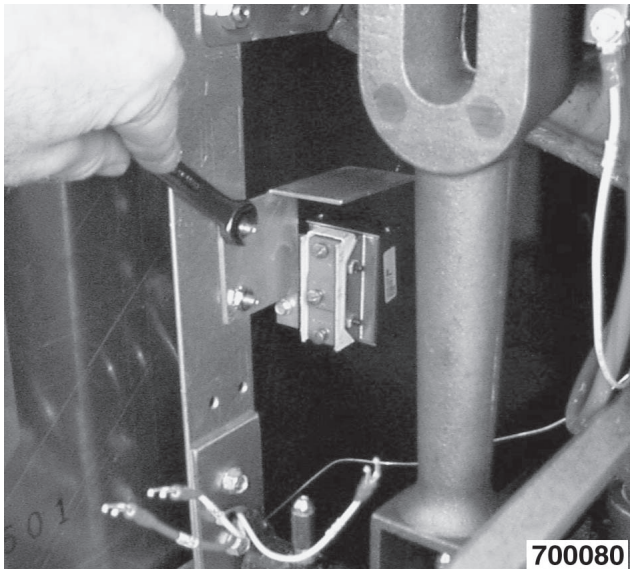
HIGH LIMIT

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

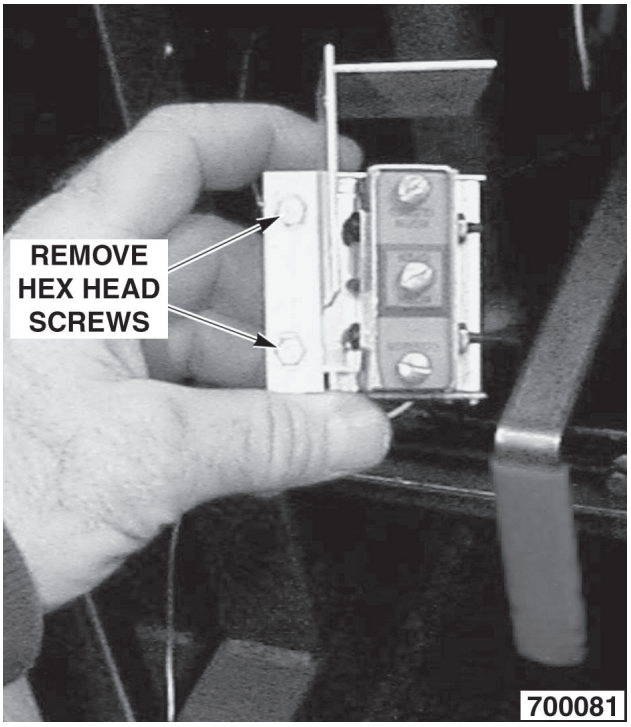
1. Drain all the water from the cooker tank.
2. Remove the left burner for direct access to the high limit. See Gas Burners for removal.
3. Remove the electrical wiring from the high limit.



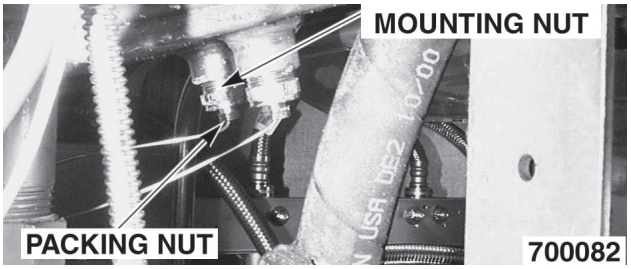
4. Remove the two nuts and bolts securing the high limit mounting bracket to the frame.



5. Remove the two holding hex head screws securing the mounting bracket to the high limit.

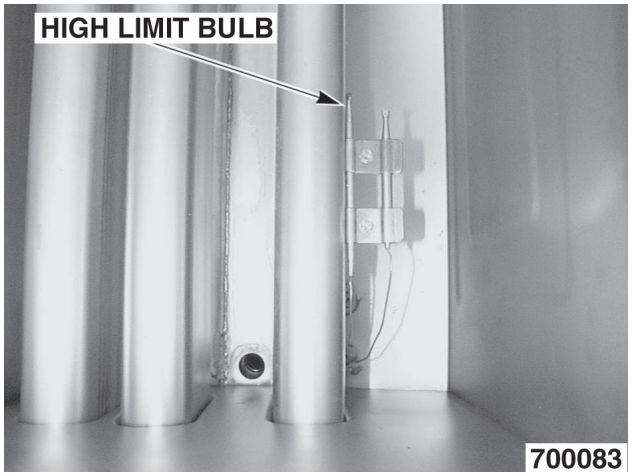


6. Follow the high limit capillary to the packing nut located on the bottom of the cooker tank.
7. Access to the packing nut can be gained through the rinse station door on the right side of the pasta cooker. Remove the packing nut then remove the high limit mounting nut.



NOTE: If more room is required to reach the packing nut the right burner may be removed. See Gas Burners for removal.

8. Remove the high limit bulb from the tank mounting brackets.



9. Reverse procedures to install new high limit.

NOTE: When installing a new high limit, take care not to kink the capillary.

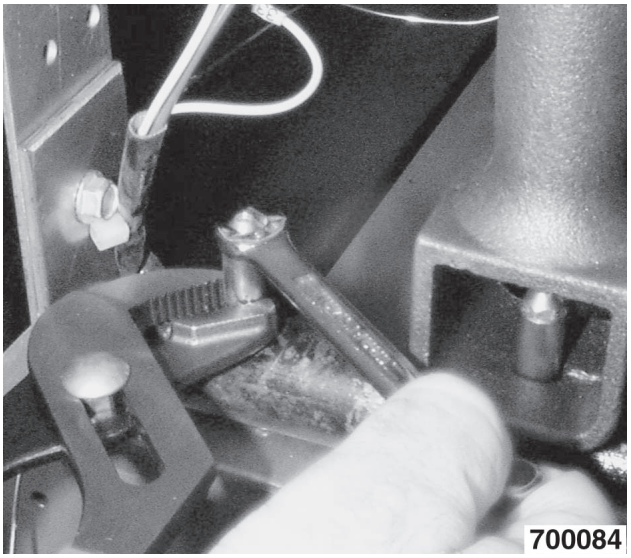
BURNER NOZZLE AND ORIFICE

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

WARNING: SHUT OFF THE GAS BEFORE SERVICING.

WARNING: ALL GAS JOINTS DISTURBED DURING SERVICING MUST BE CHECKED FOR LEAKS. CHECK WITH SOAP AND WATER SOLUTION (BUBBLES). DO NOT USE AN OPEN FLAME.

1. Remove the burners as outlined under Gas Burners.
2. Hold the burner nozzle with channel locks and remove the orifice.



3. With channel locks remove the burner nozzle.
4. Reverse procedure to install new burner nozzle and orifice.

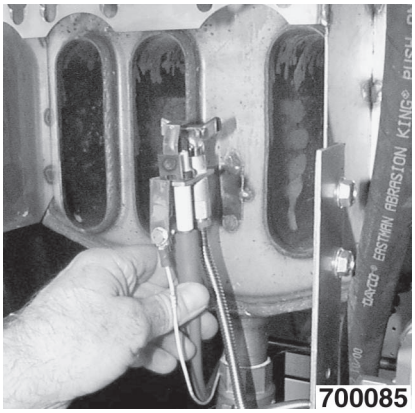
PILOT IGNITOR ASSEMBLY

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

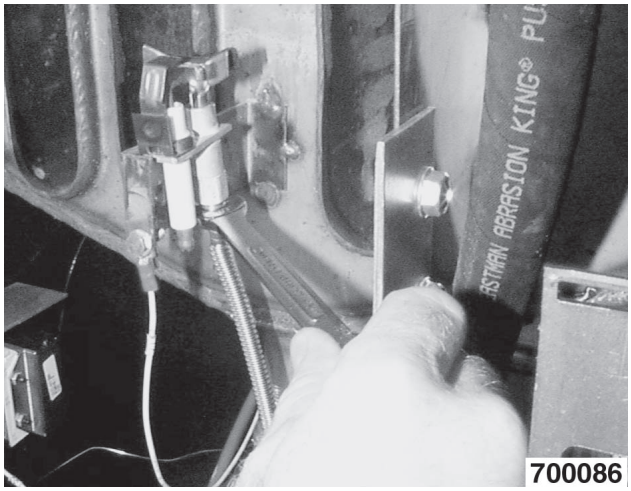
WARNING: SHUT OFF THE GAS BEFORE SERVICING.

WARNING: ALL GAS JOINTS DISTURBED DURING SERVICING MUST BE CHECKED FOR LEAKS. CHECK WITH SOAP AND WATER SOLUTION (BUBBLES). DO NOT USE AN OPEN FLAME.

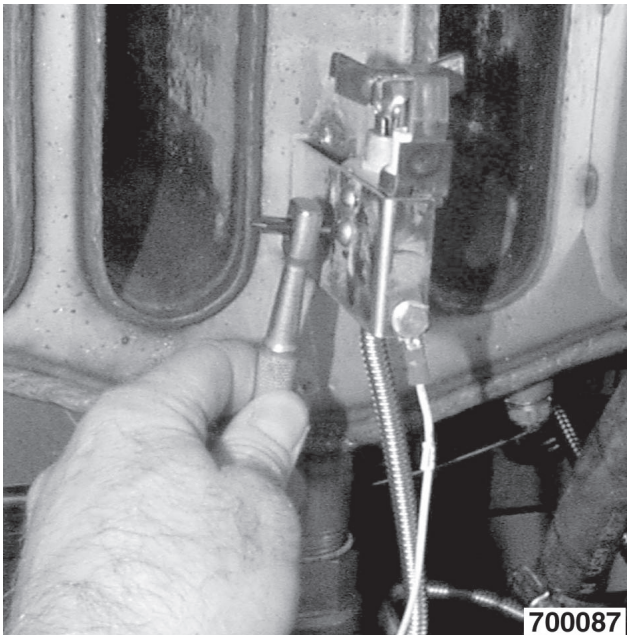
1. Remove the cooker control panel as outlined under Covers and Panels.
2. Remove the control box housing as outlined under Control Box Housing.
3. Remove the burners as outlined under Gas Burners.
4. Pull the ignition cable from the spark ignitor.



5. Loosen the pilot tube compression nut.



6. With an offset screwdriver, remove the two screws from the ignitor/pilot holding bracket and pull the assembly from the cooker tank.



7. Reverse the procedure to install new pilot ignitor assembly.

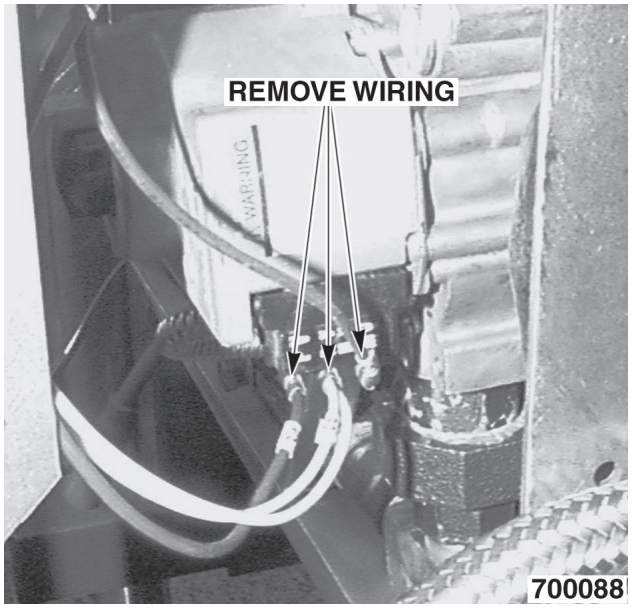
GAS COMBINATION VALVE

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

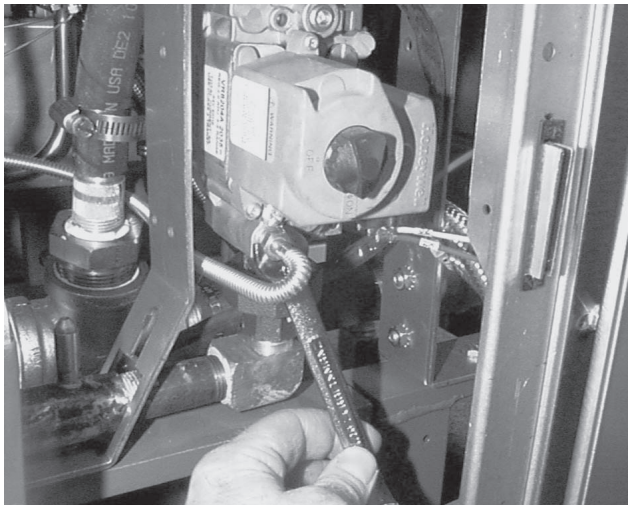
WARNING: SHUT OFF THE GAS BEFORE SERVICING.

WARNING: ALL GAS JOINTS DISTURBED DURING SERVICING MUST BE CHECKED FOR LEAKS. CHECK WITH SOAP AND WATER SOLUTION (BUBBLES). DO NOT USE AN OPEN FLAME.

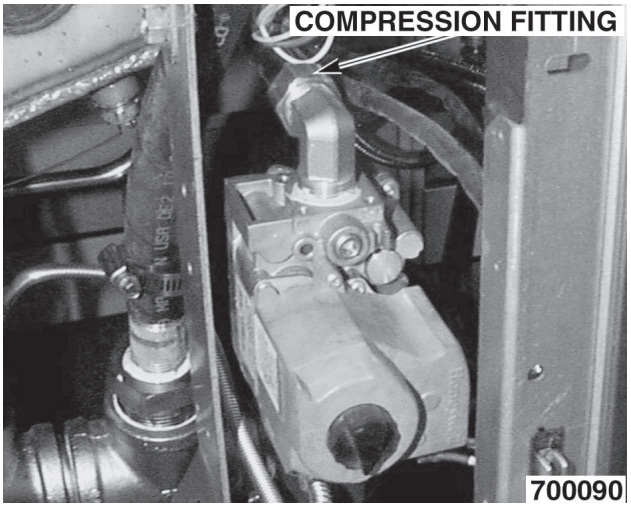
1. Remove all wiring associated with the combination valve.



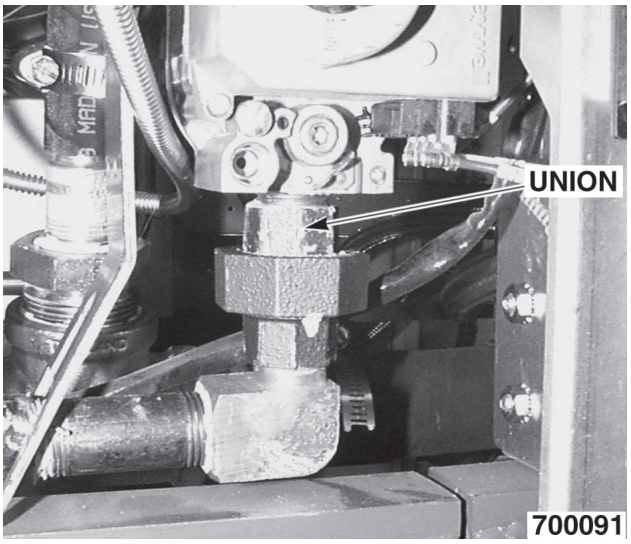
2. Loosen the pilot tube compression nut at the combination valve.



3. Loosen the gas line compression fitting at the elbow on top of the combination valve.



4. Loosen the gas line union fitting below the combination valve.



5. Remove the combination valve.

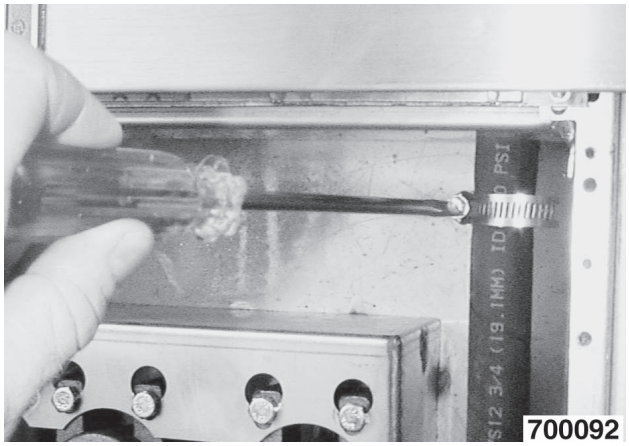
6. Reverse procedure to install new combination valve.

OVERFLOW HOSES

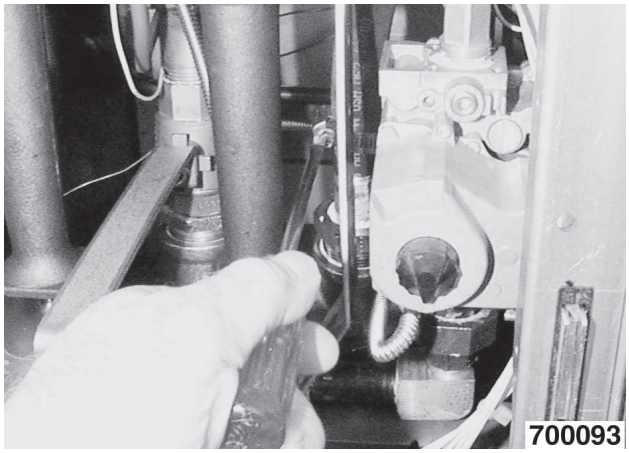
WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

Cooker Tank Hose

1. Drain all the water from the cooker tank.
2. Remove the cooker control panel as outlined under Covers and Panels.
3. Remove the control box housing as outlined under Control Box Housing.
4. Remove the hose clamps on the top of the hose.



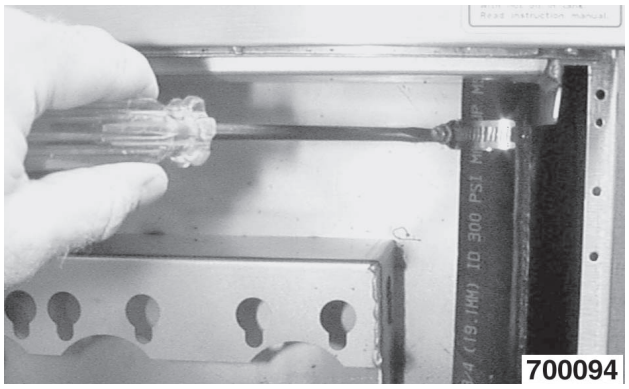
5. Remove the hose clamps on the bottom of the hose.



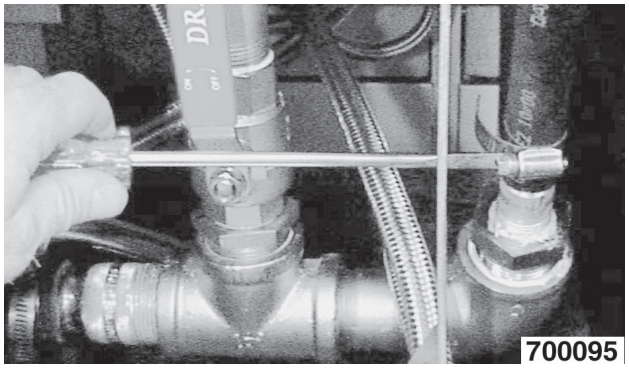
6. Pull the hose from the top drain tube and the and the bottom T-fitting.
7. Reverse the procedure to install new overflow hose.

Rinse Tank Hose

1. Drain all the water from the rinse tank.
2. Remove the rinse tank control panel as outlined under Covers and Panels.
3. Remove the hose clamps on the top of the hose.



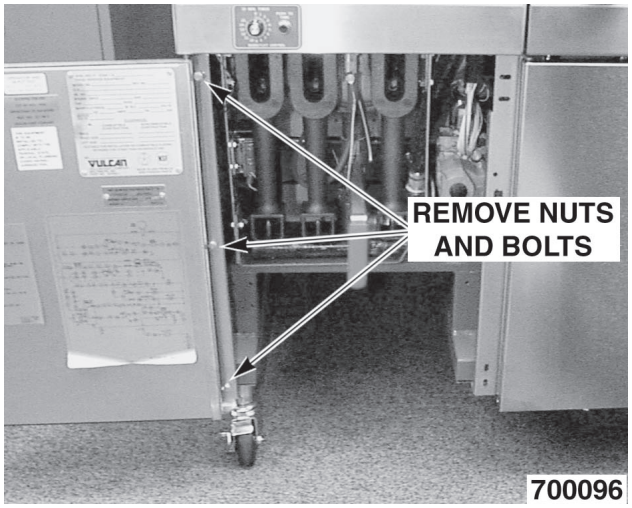
4. Remove the hose clamps on the bottom of the hose.



5. Pull the hose from the top drain tube and the and the bottom elbow fitting.
6. Reverse the procedure to install new overflow hose.

DOORS

1. There are two doors on the pasta cooker. Open the door to be removed.
2. Loosen the nuts and bolts securing the mounting bracket to the frame.



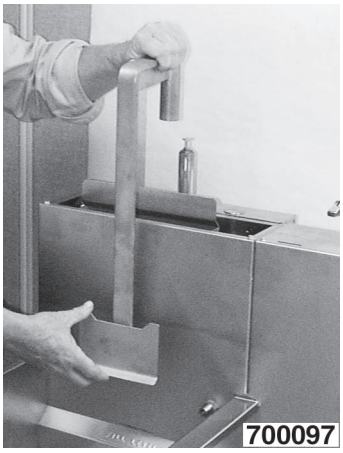
3. Remove the door.
4. Reverse the procedure to install.

OPTIONAL BASKET LIFT ASSEMBLY

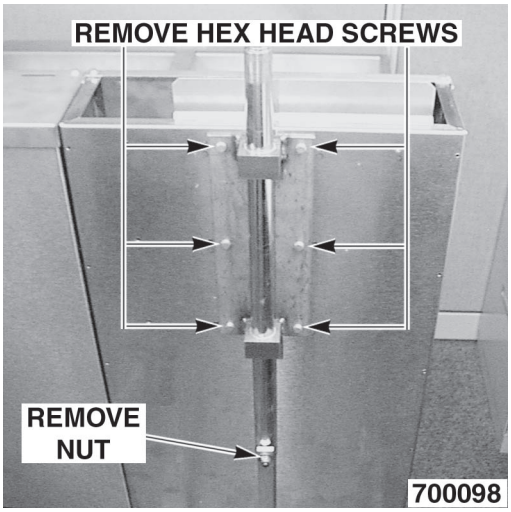
WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

Lifting Rod and Bracket

1. Remove basket lift arm.



2. Remove upper and lower panels as outlined under Lifting Mechanism Panels.
3. Remove the nut that attaches the lifting rod to the lifting bar.

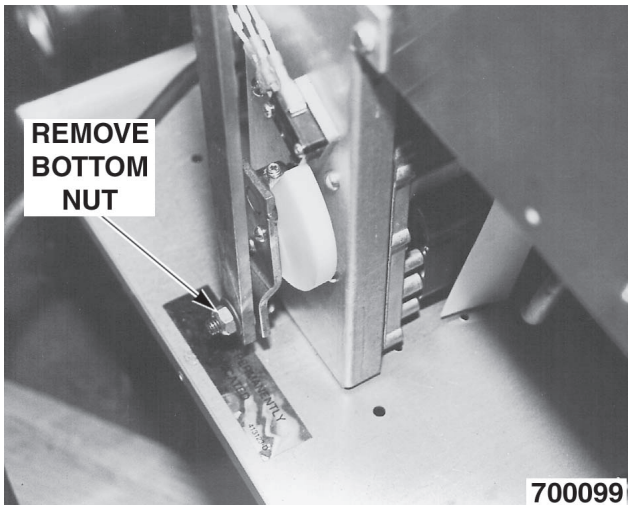


4. Remove the hex head screws from the lifting rod holding bracket.
5. Reverse the procedure to install new lift rod and bracket.

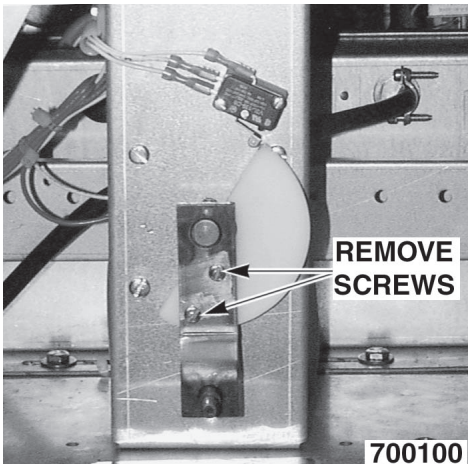
Cam

1. Remove upper and lower panels as outlined under Lifting Mechanism Panels.

2. Remove the bottom nut from the lifting bar, and move it to the side.



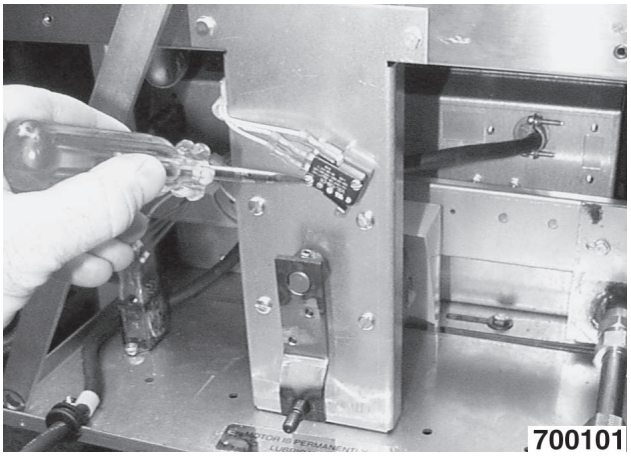
3. Remove the two screws from the crank arm holding the cam.



4. Remove the cam.

Cam Switch

1. Remove the two nuts and bolts holding the cam switch to the motor mounting bracket.



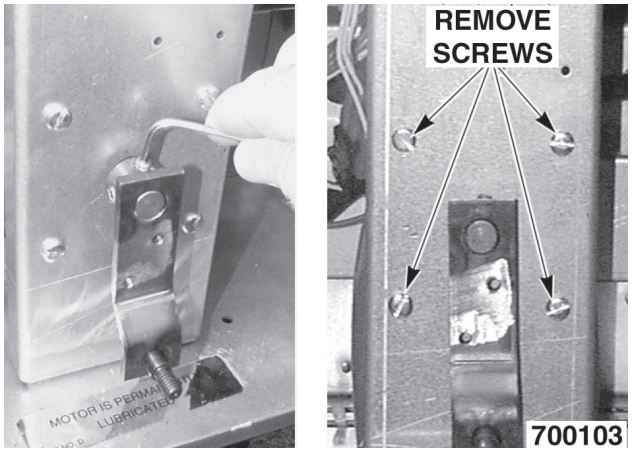
2. Remove wiring from the cam switch.

3. Remove the cam switch.

Crank Arm and Motor

1. Remove all the wiring from the motor.

2. Remove the two set screws on the crank arm and the four screws holding the motor to the mounting bracket.



3. Remove the crank arm and motor.

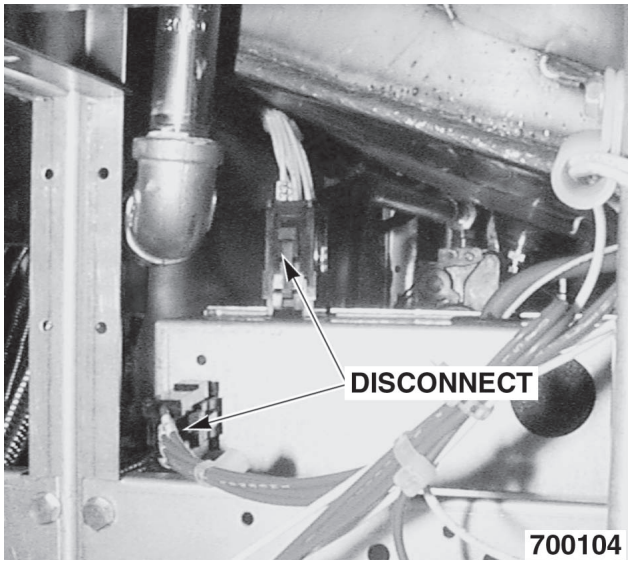
4. Reverse procedures to install all components.

POWER SUPPLY BOX

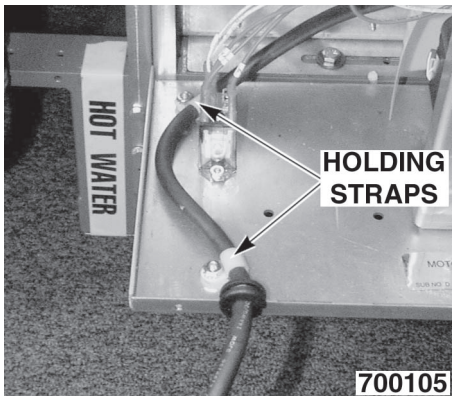
WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

1. Remove the upper and lower lift mechanism panel as outlined under Upper and Lower Lift Mechanism Panels in Covers and Panels.

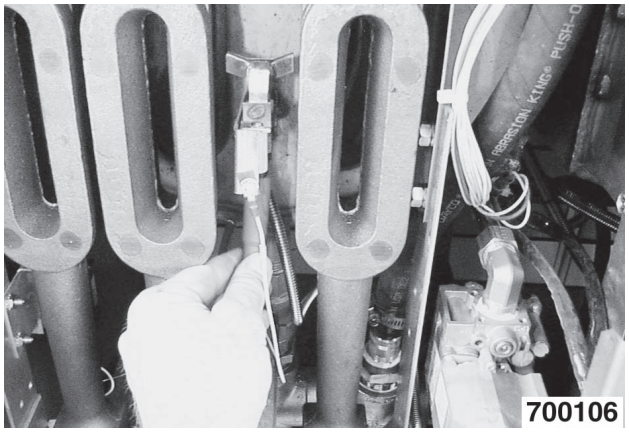
2. Disconnect the wiring harness from the power supply box (two places).



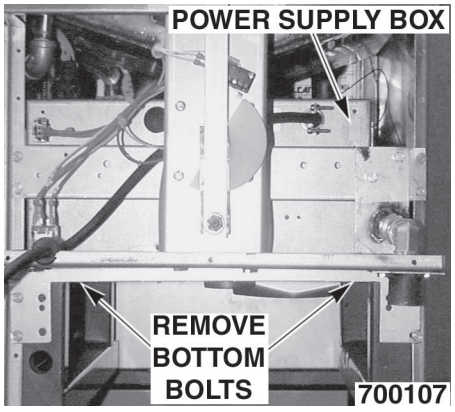
3. Remove the nuts and bolts securing the electrical cord holding straps (two places).



4. Pull the ignition cable from the spark ignitor, and remove the wire attached to the pilot ignitor assembly bracket.



5. Loosen the two bolts on the bottom of the power supply box.



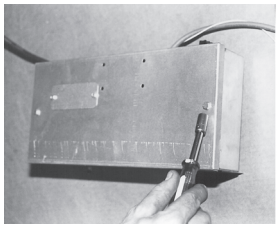
6. Slide the power supply box forward and down to remove.

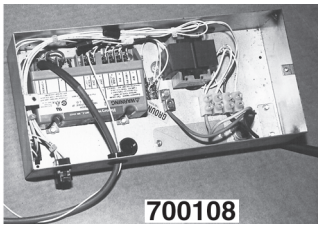
7. Reverse the procedure to reinstall power supply box.

POWER SUPPLY BOX INTERNAL COMPONENTS

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

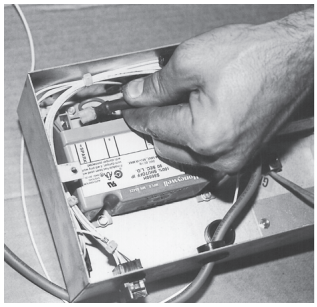
To access the power box internal components, remove the two screws securing the power supply box cover.

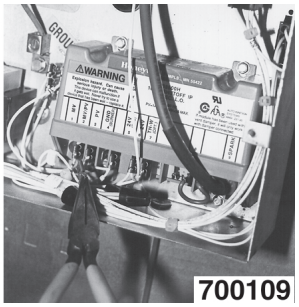




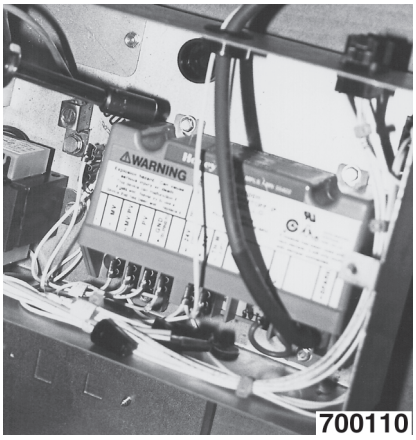
Ignitor Module

1. Disconnect all wiring associated with the ignitor module.





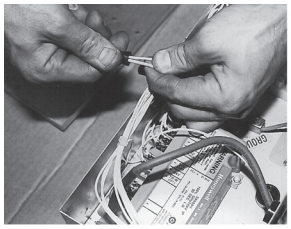
2. Remove the four screws holding the ignitor module.

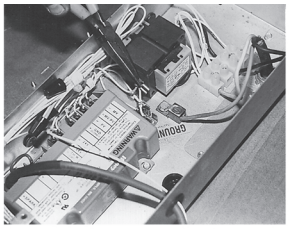


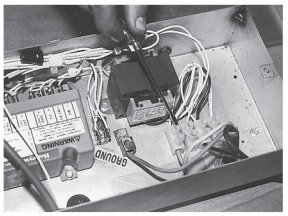
3. Reverse the procedure to install new ignitor module.

Transformer

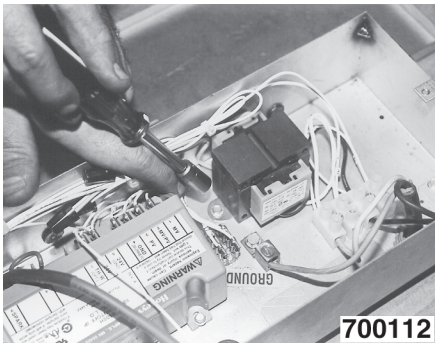
1. Disconnect all wiring associated with the transformer.







2. Remove the two screws holding the transformer.



3. Reverse the procedure to install new transformer.

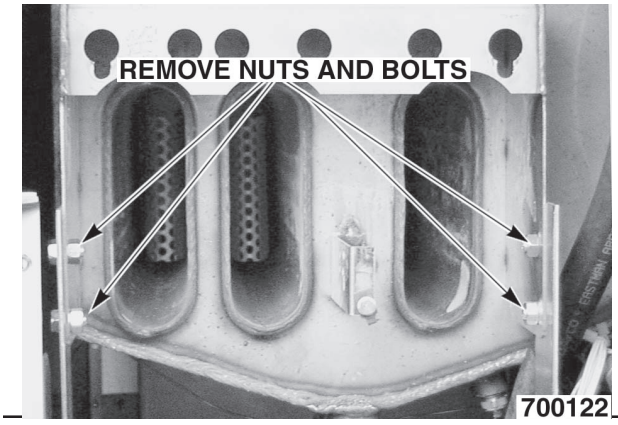
COOKER TANK

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

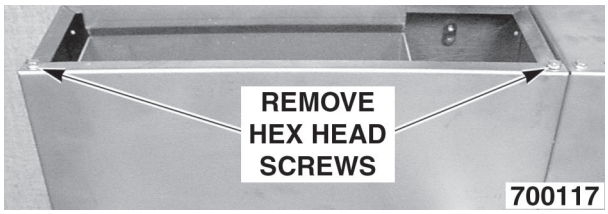
WARNING: SHUT OFF THE GAS BEFORE SERVICING.

WARNING: SHUT OFF WATER BEFORE SERVICING.

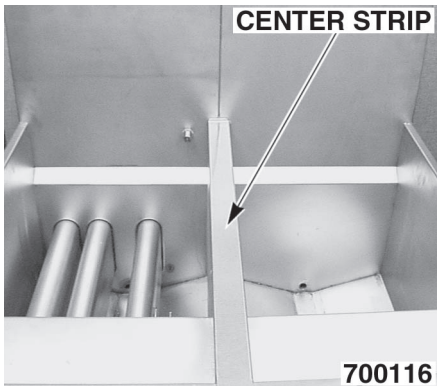
1. Remove basket and basket hanger.
2. Drain cooker tank.
3. Remove the basket lift arm.
4. Remove the upper and lower back panels as outlined under Covers and Panels.
5. Remove the cooker control panel as outlined under Cooker Control Panel in Covers and Panels.
6. Remove the control box housing as outlined under Control Box Housing.
7. Remove the burners as outlined under Burners.
8. Remove the pilot ignitor assembly as outlined under Pilot Ignitor Assembly.
9. Remove the thermostat bulb as outlined under Thermostat Removal in Control Panel Components.
10. Remove the high limit bulb as outlined under High Limit.
11. Remove the cooker tank overflow hose as outlined under Cooker Tank Hose in Overflow Hoses.
12. Remove the four nuts and bolts from the tank support bracket.



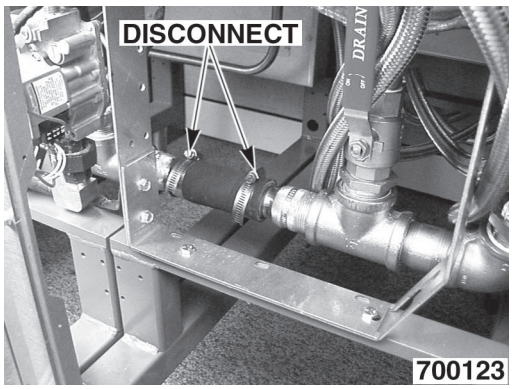
13. Remove the two hex head screws at the top of the flue box.



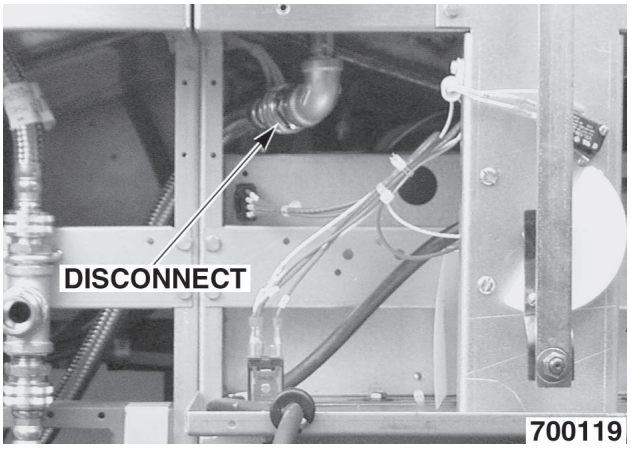
14. Remove the center strip between the cooker and rinse tank.



15. Disconnect the center rubber drain hose.



16. Disconnect the fill port spray nozzle water fitting from the rear of the pasta cooler.



17. Remove the fill port spray nozzle.

NOTE: When reinstalling, the fill port spray nozzle should be pointed down and angled slightly to the right. When operating, the spray pattern should spray the entire width of the tank.

18. With the assistance of another person, stand in front of the pasta cooker and grasp the back and the front of the tank. Carefully tilt the tank back forward and lift the tank out the pasta cooker body.

19. Reverse procedure to install. Retain the controls and hardware for reassembly to the new tank.

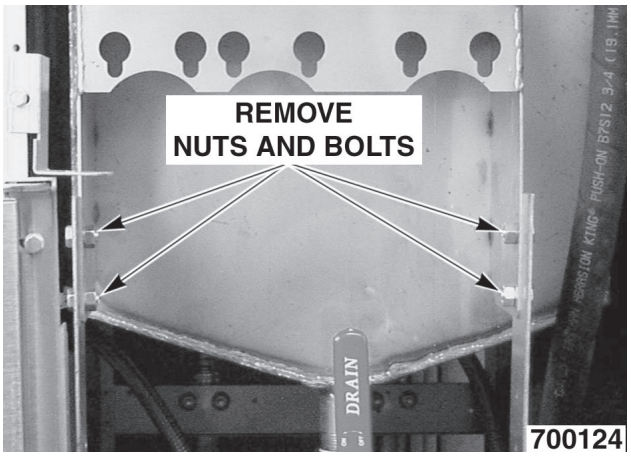
RINSE TANK

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

WARNING: SHUT OFF THE GAS BEFORE SERVICING.

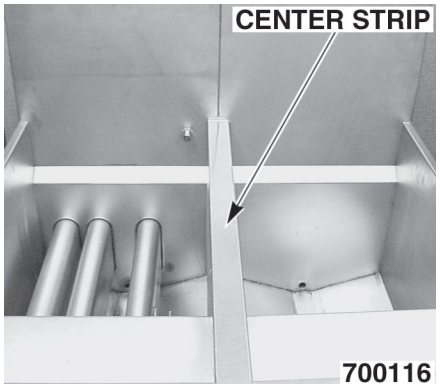
WARNING: SHUT OFF WATER BEFORE SERVICING.

1. Remove basket hanger, basket support rack and basket.
2. Drain rinse tank.
3. Remove the rinse station control panel as outlined under Rinse Station Control Panel in Covers and Panels.
4. Remove the rinse tank overflow hose as outlined under Rinse Tank Hose in Overflow Hoses.
5. Remove the four nuts and bolts from the tank support bracket.

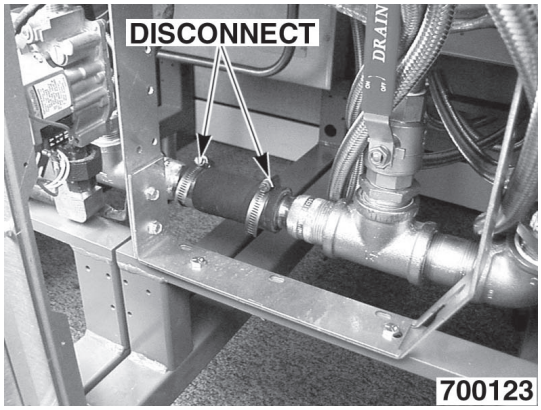


6. Remove the two hex head screws at the top of the rinse station box.

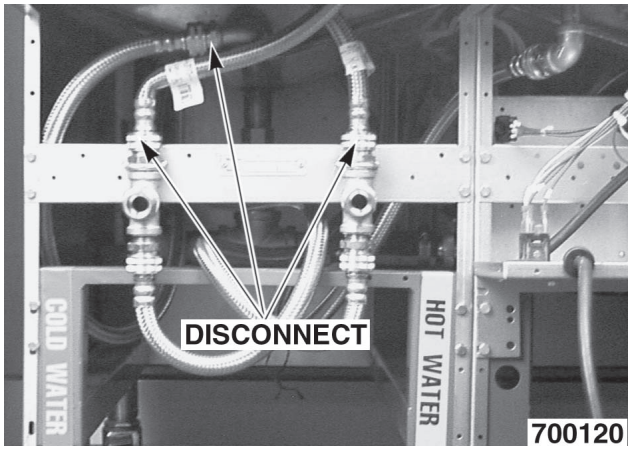
7. Remove the center strip between the cooker and rinse tank.



8. Disconnect the center rubber drain hose.



9. Disconnect the water fill hose fittings from the rear of the of the pasta cooker.



10. With the assistance of another person, stand in front of the pasta cooker and grasp the back and the front of the tank. Carefully tilt the tank back forward and lift the tank out of the pasta cooker body (see step 18 under Cooker Tank).

11. Remove the rinse station faucet assembly.

12. Reverse procedure to install. Retain the controls and hardware for reassembly to the new tank.

SERVICE PROCEDURES AND ADJUSTMENTS

WARNING: CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TEST OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES. IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCERN POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

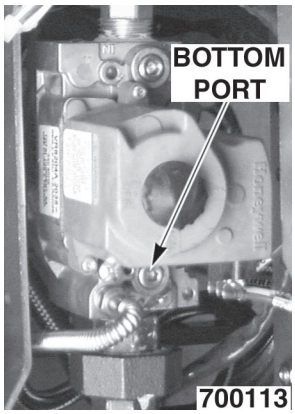
GAS REGULATOR ADJUSTMENT

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

WARNING: SHUT OFF THE GAS BEFORE SERVICING.

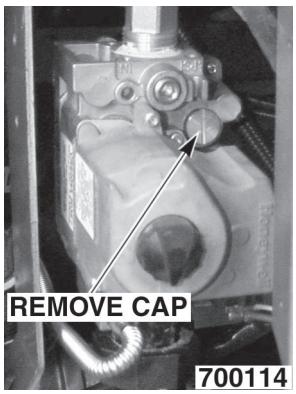
Accurate gas pressure adjustments can only be made with the gas on and the burner lit. If the incoming line pressure to the valve is less than the minimum stated, then the pressure cannot be set correctly.

1. Remove the plug from the bottom port of the gas valve.



2. Install a hose barb adapter and attach the manometer tube. Turn the gas supply to the pasta cooker back on.
3. Connect power.
4. Set the thermostat to BOIL. The burner must be lit during test and adjustment.
5. Read the manometer. The manifold pressure reading should match the pressure rating on the data plate.

A. To adjust, remove the cap covering the manifold pressure adjustment screw. Turn the recessed manifold pressure adjustment screw counterclockwise to decrease pressure or clockwise to increase pressure.



THERMOSTAT CALIBRATION

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

WARNING: SHUT OFF THE GAS BEFORE SERVICING.

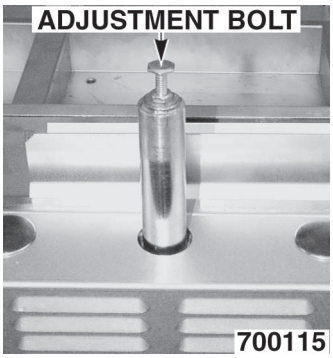
1. Set the thermostat to BOIL and allow the temperature to stabilize (at least three minutes).
2. Place a temperature tester near the tank probe tubes.
3. The water temperature reading of the temperature tester should be 225°F ±10°F.
4. If the thermostat needs adjusted, remove the knob and insert a small flat head screwdriver into the slotted shaft.
5. Turn the small adjusting screw until the temperature tester has a reading of 225°F ±10°F. Turn the screw clockwise to increase temperature and counterclockwise to decrease temperature . One-quarter turn will change the temperature by 18°F.

OPTIONAL BASKET LIFT ASSEMBLY

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

Adjustment

1. Allow pasta cooker to cool.
2. Remove the cooker basket.
3. Pull the lift arm from the cooker.
4. Turn the adjustment bolt to raise or lower the basket as needed.



Timer Check

1. Remove the cooker control panel as outlined under Covers and Panels in Removal and Replacement of Parts.
2. Check for good wire connection at the terminals.
3. Connect power and switch to ON.
4. Check for 24 VAC across the input terminals of L1 and L2.
5. Check for 24 VAC across the load terminals after pushing the timer button and setting the timer. The reading should remain constant at 24 VAC until the timer runs out.

Relay Check

1. Remove the lower lift mechanism panel as outlined under Covers and Panels in Removal and Replacement of Parts.
2. Connect power and switch to ON.
3. Check for 0 ohms between connections 5 and 3, 6 and 4.
4. Turn the power OFF and disconnect.
5. Check for coil resistance of above 168 ohms. Also check for continuity of 0 ohms across connections 1 and 5, 0 and 6.

Micro Switch Check

1. Remove the lower lift mechanism panel as outlined under Covers and Panels in Removal and Replacement of Parts.
2. Remove switch wiring.
3. Engage the switch and check for continuity across the common and normally open circuits.

Motor Check

1. Remove the lower lift mechanism panel as outlined under Covers and Panels in Removal and Replacement of Parts.
2. Connect power and check for voltage to the motor.
3. Verify the motor voltage agrees with the voltage on the data plate.
4. Disconnect power and disconnect the motor wires at the motor terminals.
5. Check for 28 ohms of resistance across the terminals.

TRANSFORMER CHECK

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

1. Remove the power supply box as outlined under Power Supply Box in Removal and Replacement of Parts.
2. Connect power and check the primary and secondary voltages. They should match the voltages marked on the transformer.

HIGH LIMIT CHECK

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

1. Turn the pasta cooker ON.
2. Set the temperature to BOIL.
3. Place pyrometer in tank near the probe tubes.
4. The high limit should trip between 235°F to 265°F.

VERIFICATION OF SPARK AT IGNITOR

WARNING: DISCONNECT (UNPLUG) ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING YOU ARE WORKING ON THE CIRCUIT.

WARNING: SHUT OFF THE GAS BEFORE SERVICING.

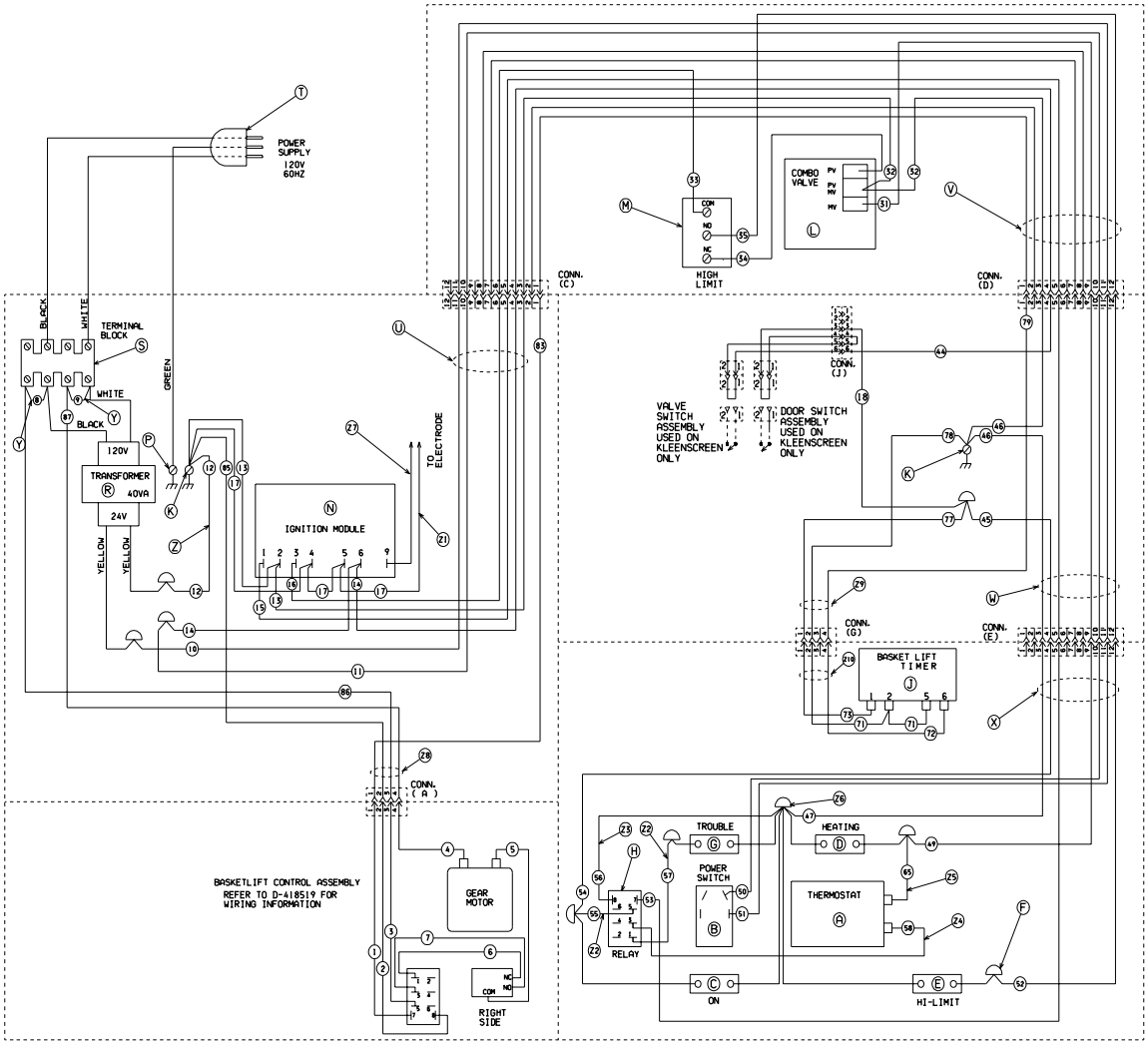
1. Remove the cooker control panel as outlined under Covers and Panels.
2. Remove the control box housing as outlined under Control Box Housing.
3. Disconnect the ignition cable from the spark ignitor.
4. Clamp the ignition cable in a manner that will position the end of the cable $^{3}/_{16}$" from the oven frame (bare metal surface). It is critical that the cable be held $^{3}/_{16}$" away from the surface of the oven frame, or sparking may not occur even though the sparking circuit is functioning properly.

WARNING: THE FOLLOWING STEPS REQUIRE POWER TO BE APPLIED TO THE UNIT DURING THE TEST. USE EXTREME CAUTION AT ALL TIMES. GAS SUPPLY SHOULD BE OFF.

5. Plug the pasta cooker in and set the temperature controller to BOIL.
6. Turn the power switch ON.
7. Arcing from the ignition cable to the frame should be observed.

ELECTRICAL OPERATION

WIRING DIAGRAMS



FOR REFERENCE ONLY

REQ.	ITM	DESCRIPTION	PART NO.
1	Z10	BASKETLIFT HARNESS - SINGLE	419346-G3
1	Z9	BASKETLIFT HARNESS - SINGLE	419345-G2
1	Z8	BASKETLIFT HARNESS - SINGLE	419346-G1
1	Z7	IGNITOR CABLE	419359
1	Z6	WIRE NUT, HI-TEMP.	414695-2
1	Z5	WIRE ASSEMBLY (65)	414730-006-ES
1	Z4	WIRE ASSEMBLY (58)	414730-014-EH
1	Z3	WIRE ASSEMBLY (56)	414730-012-HS
2	Z2	WIRE ASSEMBLY (55)(57)	414730-006-HS
1	Z1	LEAD ASSEMBLY (17)	414287-231
1	Z	WIRE ASSEMBLY (12)	414730-006-IS
2	Y	WIRE ASSEMBLY (8)(9)	414730-004-SS
1	X	DISPLAY HARNESS	419329-G1
1	W	CONTROL HARNESS	427171-G1
1	V	MAIN HARNESS	420842-G1
1	U	POWER HARNESS	419332-G1
1	T	POWER CORD	419315
1	S	TERMINAL BLOCK	414208-2
1	R	24V TRANSFORMER	411500-12
1	P	GROUND LUG	417856-1
1	N	IGNITOR MODULE	417980-1
1	M	HI-LIMIT	419670-3
1	L	COMBO VALVE (NAT.)	420828-1
		COMBO VALVE (L.P.)	420828-2
2	K	TERMINAL, STATIONARY	419317
1	J	TIMER	415254-2
1	H	24VAC RELAY	416535-4
1	G	'TROUBLE' LIGHT	411496-E10
8	F	WIRE NUT	FE006-29
1	E	HI-LIMIT	411496-E20
1	D	AMBER LIGHT	411496-E13
1	C	RED LIGHT	411496-E8
1	B	ROCKER SWITCH	411496-B1
1	A	THERMOSTAT	419999-3

TROUBLESHOOTING

SYMPTOMS	POSSIBLE CAUSES
Gas does not ignite. No spark.	Shorted electrode on igniter/flame sense. Ignitor cable (high voltage) OPEN. Temperature control relay malfunction. Transformer inoperative. High limit thermostat open. Interconnecting wiring malfunction. Ignition module malfunction.
Sparks but gas does not ignite.	Gas solenoid valve off or inoperative. Manual gas valve closed. Gas supply off or insufficient gas pressure. Interconnecting wiring malfunction. Ignition module malfunction.
Gas ignites but will not maintain flame.	Ignitor lead connections malfunction. Ignitor ground inoperative. Ignitor/flame sense malfunction or maladjusted. Insufficient gas pressure. Incorrect polarity from transformer to ignition module.
Excessive or low heat.	Temperature probe malfunction. Temperature control malfunction. Gas pressure insufficient. Gas orifice plugged or obstructed.
Mechanical timer inoperative or not functioning properly.	Interconnecting wiring malfunction. Line voltage incorrect. Timer malfunction.

NOTES